Homework 5 Part A

Assigned on: Monday, October 7th, 2019.
Due: Monday, October 14th, 2019.

This homework comes in two parts. This is Part A, which includes:

1. A regular ‘exercise’ on AI games over adverserial search.
2. Problems on adverserial search and alpha-beta pruning that were omitted from Homework 4 that have now been covered during lecture

Part B of this assignment will cover programming various search algorithms using Common Lisp. While Part B has a later deadline than Part A, we strongly urge you to get an early start programming (in other words, don’t just wait until after the deadline for Part A to begin Part B). Please submit your answers to Part A via handin or in class.

As always, please do not hesitate to seek help during recitation and office hours.

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2 Minimax (5 points) 2
3 Alpha-beta Pruning (5 points) 3
1. Compute the minimax decision. Show your answer by writing the values at the appropriate nodes in the above tree.  

2. What move should Max choose?
3 Alpha-beta Pruning (5 points)

Using the alpha-beta pruning method, with standard left-to-right evaluation of nodes, show what nodes are not examined by alpha-beta.

MAX

MIN

MAX

MIN

L M N O P Q R S T U V W X Y Z AB